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EXAMINER

BADAWI, SHERIEF

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Please find below and/or attached an Office communication concerning this application or proceeding.

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**BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES**

MAILED

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Technology Center 2100

Application Number: 10/519,856
Filing Date: December 29, 2004
Appellant(s): CROWTHER ET AL.

Robert B. Levy
For Appellant

EXAMINER'S ANSWER

This is in response to the appeal brief filed 11/21/2007 appealing from the Office action mailed 6/21/2007.

(1) Real Party In Interest

A statement identifying by name the real party in interest is contained in the brief.

(2) Related Appeals and Interferences

The examiner is not aware of any related appeals, interferences, or judicial proceedings which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

(3) Status of Claims

The statement of the status of claims contained in the brief is correct.

(4) Status of Amendments After Final

The appellant's statement of the status of amendments after final rejection contained in the brief is correct.

(5) Summary of Claimed Subject Matter

The summary of claimed subject matter contained in the brief is correct.

(6) Grounds of Rejection to be Reviewed on Appeal

The appellant's statement of the grounds of rejection to be reviewed on appeal is correct.

(7) Claims Appendix

The copy of the appealed claims contained in the Appendix to the brief is correct.

(8) Evidence Relied Upon

Baldwin et al. (U.S. Patent No. 7,171,624) Filed October 5, 2001.

Lavallee et al. (U.S. Patent No. 7,003,527) Filed June 21, 2002.

(9) Grounds of Rejection

The following ground(s) of rejection are applicable to the appealed claims:

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. **Claim 1-11** is rejected under 35 U.S.C. 103(a) as being unpatentable over Baldwin et al. (U.S. Patent No. 7,171,624 B2) filed on October 5, 2001, further in view of Lavallee et al. (US 7003527) filed on June 27, 2002

As per **Claims 1 and 7**, Baldwin discloses a method for managing at least one storage device **(management of a storage area network; Abstract, lines 1-2, as taught by Baldwin)**, comprising the steps of: (a) identifying the at least one storage device; **(the identification of the physical storage device; Paragraph.21, lines 5-6, as taught by Baldwin)**. b) Establishing a database containing information about the identified device; **(Further aspects of the invention provide systems as described above in which the manager maintains in a relational database**

a topological or other representation of the storage area network, or aspect thereof;

Paragraph.32, lines 1-4, as taught by Baldwin). Wherein the information about the identified at least one storage device includes operating characteristics of the identified at least one storage device; Baldwin discloses identifying operating characteristics of storage devices (see **Column.18, lines 55-67 where the invention retrieves requisite parameter, such as command parameters from the database, as taught by Baldwin)** furthermore Baldwin discloses vendor and manufacturer related detection and performing operations on identified devices which is clearly and operational characteristic that is detected to be able to perform operational tasks on devices in the storage area network. To expedite the prosecution the Examiner presents a secondary teaching Lavalley which clearly discloses information about the identified at least one storage device includes operating characteristics (See Lavalley Columns.3-4, wherein Lavalley clearly discloses management station which includes management application that operates in application programming interface designed for universal management and control of elements (eg. Devices, programs, adapters) manufactured or provided from different vendors within the storage area network, wherein to manage different storage devices requires the acquiring functional and operational components for a particular device) (c) Providing to the user a graphical user interface in accordance with the information in the database, the graphical interface displaying at least one menu option for the identified at least one storage device for the user to select at least one of (i) display of the information about the identified at least one storage device and; **(provide a system as described above in which the GUI provides for selective display of storage devices, or logical units, depending upon their storage capacity or other quantitative attributes; paragraph.28, lines 1-5, as taught by Baldwin).** (ii) Execution of at least one process to control the operation of the at

least one storage device; **(management of a storage area network (SAN), executes a process; abstract lines 1-2. According to one such aspect of the invention, the invention provides an improved SAN of the type having one or more digital data processors, e.g., hosts of the type described above, in communication with one or more storage devices, e.g., LUNs. The host (or other digital data processor) is of the type with an operating system that utilizes (i) a port driver to define a software interface between a class driver and an adapter to which one or more of the storage devices are coupled, and (ii) a class driver that claims storage devices for access, e.g., by the operating system and any applications programs executing therein, by invoking the port driver to which the host is coupled; Paragraph.91, lines 1-10, as taught by Baldwin).** d) processing the user-selected menu option; **(processing in connection with those tasks; Paragraph.34, lines 5-6, as taught by Baldwin).** (e) Automatically updating the graphical user interface in response to the processing of the user-selected menu option. **(A graphical output device displays the SAN representation. A further process, herein referred to as a user interface process, controls the output device for purposes of displaying that representation. An interface element, residing on the manager digital data processor or another data processor, effects retrieval of the SAN representation, for example, in response to a request from the user interface process. It transmits that representation to the user interface process for display on the graphical output device; Paragraph.117, lines 6-14, as taught by Baldwin).**

Therefore, it would have been obvious to a person of ordinary skill in the computer art at the time of the invention was made to incorporate the Lavallee to Baldwin system. Skilled artisan would have been motivated acquire or include operational characteristics to the storage area network management systems to provide a consolidated and complete management of storage area networks.

In addition, both of the references (Baldwin and Lavallee) teach features that are directed to analogous art and they are directed to the same field of endeavor, such as, storage area network management. This close relation between both of the references highly suggests an expectation of success.

As per **Claims 2 and 8**, the rejection of claim 1 is hereby incorporated by reference; the combination of Baldwin and Lavallee discloses step of identifying the one storage device comprises the step of ascertaining a manufacturer and model number for the at least one storage device; **(Figures 16-17, as taught by Baldwin).**

As per **Claims 3 and 9**, the rejection of claim 1 is hereby incorporated by reference; the combination of Baldwin and Lavallee discloses establishing a database comprises the step of obtaining information that includes at least one of (a) operational rules, (b) commands and (c) processing routines of the at least one storage device; **(the invention provides a SAN as described above in which the manager maintains policies for handling events pertaining to (i) attributes of at least selected hosts and/or (ii) establishment of relationships of at least selected hosts with one or more storage units. A policy engine included within the manager responds to notification of at least a selected event by effecting execution of an action according to the policy maintained therefor; Paragraph.30, lines 1-6. Fig.17, as taught by Baldwin).**

As per **Claims 4 and 10**, the rejection of claim 3 is hereby incorporated by reference; the combination of Baldwin and Lavallee discloses determining if the requested execution of the at least

one process complies with the operational rules for the identified at least one storage device, operational rules for the identified device, **(The rules section is comprised of multiple rules--one or more rules per managed device. The rule itself is comprised of two sections--the id section and the management information section. The id section is used to uniquely identify the device to be managed. The management information section is a collection of multiple types of management information, each one describing a certain method for managing the particular device; paragraph.414, lines 1-7. Defined control characters are allowed in the rules file and cause specific actions to occur depending on the control character; Paragraph.422, lines 1-2, as taught by Baldwin).** and if not, blocking execution of the at least one process; and generating an error message; **(Defined control characters are allowed in the rules file and cause specific actions to occur depending on the control character; Paragraph.422, lines 1-2. a severe error message can be generated; Paragraph.189, line 2, as taught by Baldwin).**

As per **Claims 5 and 11**, the rejection of claim 1 is hereby incorporated by reference; the combination of Baldwin and Lavallee discloses a graphical user interface includes the steps of: displaying icons representative of each identified at least one storage device in a hierarchical fashion in a first pane; and displaying information in a second pane related a corresponding one of the icons displayed in the first pane; **(a topological, hierarchical or enumerated (i.e., listing) display of SAN components can be accompanied by a display of component properties (e.g., identity of LUNs in a physical storage device, and so forth). The latter display, too, is beneficially generated only upon selection of a specific component in the former display. In a related aspect, data necessary for generating the latter (i.e., a component property) display is**

retrieved, for example, from a local or remote database, only upon selection of a specific component in the former display; Paragraph.27, lines 1-8. Figures. 16-17, as taught by Baldwin).

As per Claim 6, the rejection of claim 1 is hereby incorporated by reference; the combination of Baldwin and Lavallee discloses steps (d) and **(processing in connection with those tasks; Paragraph.34, lines 5-6, as taught by Baldwin)**. (e) are repeated following receipt of each subsequent menu selection made by a user; **(A graphical output device displays the SAN representation. A further process, herein referred to as a user interface process, controls the output device for purposes of displaying that representation. An interface element, residing on the manager digital data processor or another data processor, effects retrieval of the SAN representation, for example, in response to a request from the user interface process. It transmits that representation to the user interface process for display on the graphical output device; Paragraph.117, lines 6-14, as taught by Baldwin)**.

(10) Response to Arguments.

- a. Applicant Argues that the examiner has not presented a prima facie case of obviousness under 35 U.S.C. 103 against claim 1 based on Baldwin and Lavallee

The examiner disagrees with the precedent assertion. Appellant appears to misinterpret the guidance given under MPEP 2142. In particular, references are evaluated by what they suggest to one versed in the art, rather than by their specific disclosures. In re Bozek, 163 USPQ 545 (CCPA) 1969.

MPEP 2143 states:

"To establish a prima facie ease of obviousness, three basic criteria must be met.

First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. The teaching or suggestion to make the claimed combination and reasonable expectation of success must both be found in the prior art, not in applicant's disclosure. In re Vaeck, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991)."

As set forth in the office action mailed June 21, 2007, the suggestion to modify Baldwin is suggested by both and knowledge of the ordinary skilled artisan at the time the invention was made. The Court, In re Fritch, stated "the examiner can satisfy the above mentioned assertion only by showing some objective teaching in the prior art or that knowledge generally available to one of ordinary skill in the art would lead that individual to combine the relevant teachings of the references". In re fine, 837 F.2d 1071, 1074, 5 USPQ 2d 1596, 1598 (Fed. Cir. 1988) (Citing In re Lalu, 747, F.2d 703, 705, 223 USPQ 1257, 1258 (Fed. Cir. 1988). Specifically, Lavalley teaches that it was desirable to acquire or include operational characteristics to a storage area network management system to provide a consolidated and complete management of storage area network. Additionally, the ordinary skilled artisan, as well as those of less than ordinary skill in the art, would have recognized the advantages of providing operational characteristics in a storage area network, specially if storage devices with different vendors and different operational characteristics are in the storage area

network as taught by both Baldwin and Lavallee. Moreover, the issue of obviousness is not determined by what the references expressly state but by what they would reasonably suggest to one of ordinary skill in the art, as supported by decisions *In re Delisle* 406 Fed 1326, 160 USPQ 806; *In re Kell, Terry and Davies* 208 USPQ 871; and *In re Fine*, 837 F.2d 1071, 1074, 5 USPQ 2d 1596, 1596, 1598 (Fed. Cir. 1988) (Citing *In re Lulu*, 747 F.2d 703,705, 223 USPQ 1257, 1258 (Fed. Cir. 1988)). Further, it was determined *In re Lamberti et al.*, 192 USPQ 278 (CCPA) that: (a) Obviousness does not require absolute predictability; (b) Non-preferred embodiments of prior art must also be considered; and (c) The question is not express teaching of references, but what they would suggest. According to *In re Jacoby*, 135 USPQ 317 (CCPA 1962), the skilled artisan is presumed to know something more about the art than only what is disclosed in the applied references. *In re Bode*, 193 USPQ 12 (CCPA 1977), every reference relies to some extent on knowledge of persons skilled in the art to complement, that which is disclosed therein. Hence, the examiner has clearly established the first criteria of the prima facie case of obviousness.

Secondly, the examiner has established that there is a reasonable expectation of success of the Baldwin/Lavallee combination. In the last office action, the examiner went through the claims phrase by phrase and referred to the prior art column and line number as to where he has drawn the correspondences between appellant' claims phrases and prior art. Both Baldwin and Lavallee systems for management a storage area network with plurality of vendors. As indicated in the June 21, 2006 Final office action, Baldwin discloses all of the claimed subject matter and Lavallee was introduced as a secondary reference to expedite prosecution and further support the Baldwin reference. The Lavallee reference teaches a management application providing an enterprise storage network programming interface and significantly overcomes issues concerning the incompatibilities and

difficulties encountered when a network administrator desires to use storage area networking equipment from different vendors and provide interfaces to control the various vendor-specific elements.

Finally, as set forth in the final office action, the suggestion to make the claimed combination and the reasonable expectation of success are both found in Baldwin and Lavallee.

Therefore, the combination of the Baldwin and Lavallee is proper and the rejection is hereby sustained.

- b. Applicant Argues on page 6 of the brief that the combination of Baldwin and Lavallee does not teach "determining if a requested execution of a process complies with the operational rules for a storage device"

Examiner respectfully disagrees, the examiner cited (Column.178, lines 10-35) where Baldwin clearly teaches specifying management rules for each device in the plurality of devices managed by the system, which are all rules specific to the platform that is being managed. furthermore examiner points to (column.76, lines 22-45 and Figures 18-22) wherein Baldwin clearly discloses operator/administrator executing vendor-specific applications from a single graphical user interface, which is the SAN manager, such vendor specific applications are clearly operational rules specific to the storage device vendor. furthermore the examiner references Column.82, lines and Column.83, lines 4-15 and Column.83, lines 39-47) wherein the Baldwin system clearly distinguishes between platform-independent operations and platform-dependents operations based on the specific vendor and the different methods of implementing each operation, Wherein using the identifier and address to determine the target agent and transmit accordingly, wherein commands or data is transmitted to

the platform-dependent modules, (wherein clearly the system distinguishes and determines if the request is platform-independent or platform dependent).

c. Applicant Argues on page 6 of the brief that the combination of Baldwin and Lavallee does not teach "and if not, blocking execution of the at least one process;"

Examiner respectfully disagrees, Baldwin clearly teaches determining platform-dependent and platform-independent operations, furthermore platform-independent modules communicate with platform-dependent modules and operations are returned through standard output or standard Error (See Column.83, 5-15 and lines 28-34). Furthermore Baldwin clearly teaches a Rule section wherein the rules are specific per managed device (Column.78, lines 11-20) wherein the ID section includes the Rules and such rules are per managed device. Such rule must match to uniquely identify the device that the rule represents; otherwise operations can not be performed on the requested device, hence otherwise blocked.

d. Applicant Argues on page 6 of the brief that the combination of Baldwin and Lavallee does not teach "generating an error message;"

Examiner respectfully disagrees, Baldwin clearly teaches determining platform-dependent and platform-independent operations, furthermore platform-independent modules communicate with platform-dependent modules and operations are returned through standard output or standard Error (See Column.83, 5-15 and lines 28-34)

e. Applicant on page 7 of the arguments recited that the examiner recognized and conceded to his misplaced reliance on Baldwin and relied instead solely on Lavellee to reject

"determining if a requested execution of a process complies with the operational rules for a storage device, and if not, blocking execution of the at least one process; and generating an error message"

Examiner respectfully disagrees, Lavellee was only introduced in the final action to expedite prosecution and as a secondary reference that clearly describes management of storage devices and information about the identified storage device includes operational rules, **(See Column.3-4 in Lavellee wherein Lavallee clearly discloses management station which includes management application that operates in application programming interface designed for universal management and control of elements (eg. Devices, programs, adapters) manufactured or provided from different vendors within the storage area network, wherein to manage different storage devices requires the acquiring functional and operational components for a particular device)** However no columns or lines in the Lavellee reference were used to reject the following limitations "determining if a requested execution of a process complies with the operational rules for a storage device, and if not, blocking execution of the at least one process; and generating an error message", which were limitations of claim 4 during the prosecution of the case during and prior to the final action was mailed on 6/21/2007 and later amended and included as a limitation of claim 1 during the response to the final office action on 8/21/2007.

(11) Related Proceeding(s) Appendix

No decision rendered by a court or the Board is identified by the examiner in the Related Appeals and Interferences section of this examiner's answer.

For the above reasons, it is believed that the rejections should be sustained.

An Appeal conference was held on January 14th, 2008 with conferees:

Sherief Badawi(Examiner), John Cottingham (SPE), and Hosain Alam (SPE)


Respectfully submitted,

Sherief Badawi

January 15, 2008

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